

DERWENT-ACC-NO: 2001-640329
DERWENT-WEEK: 200203
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TITLE: Use of calcium and strontium salts for denaturing
allergens for e.g.
house dust mites

INVENTOR: INUI, K; MIKAME, M

PATENT-ASSIGNEE: SHINTO FINE CO LTD[SHINN], SUMITOMO CHEM
CO LTD[SUMO],
SHINTO FINE KK[SHINN], INUI K[INUII], MIKAME M[MIKAI]

PRIORITY-DATA: 2000JP-0070918 (March 14, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
US 2001048097	December 6, 2001	N/A
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A1	September 19, 2001	E
014	A01N 059/00	
EP 1133918 A1	September 20, 2001	N/A
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AU 200126453 A	November 27, 2001	N/A
006	A61K 031/19	
JP 2001328936		
A		

DESIGNATED-STATES: AL AT BE CH CY DE DK ES FI FR GB GR IE
IT LI LT LU LV MC MK N
L PT RO SE SI TR

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
US2001048097A1	N/A	2001US-0802941
March 12, 2001		
	N/A	2001EP-0105419
March 12, 2001		
EP 1133918A1	N/A	2001AU-0026453
March 9, 2001		
AU 200126453A	N/A	2001JP-0056349
March 1, 2001		

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INT-CL (IPC): A01N025/10; A01N037/02 ; A01N057/12 ;
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A01N059/06 ; A01N059/08 ; A61K031/19 ; A61K033/14 ;
A61K047/04 ;
A61K047/12 ; A61L002/16 ; A61L002/18 ; A61P011/06 ;
A61P037/00 ;
A61P037/08 ; C09K003/00

ABSTRACTED-PUB-NO: EP 1133918A

BASIC-ABSTRACT: NOVELTY - Denaturing of allergens involves
applying alkaline
earth metal salt selected from calcium and strontium salts
to the place where
allergens exist or will exist.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for
the following:

(1) a composition (C1) comprises the calcium or strontium
salt, organic or
phosphonic acid and at least one of water and alcohols; and

(2) a composition (C2) comprises the calcium or strontium
salt, at least one
water-soluble polymer compound and at least one of water
and alcohols. The
polymer compound is polyvinyl alcohol, polyacrylic acid,
polyacrylic acid
salts, polyethylene glycol or polyvinyl pyrrolidone.

ACTIVITY - Antiallergic.

An allergen denaturing test composition was prepared by
mixing (wt.%) strontium
chloride hexahydrate (2), lactic acid (2), ethanol (15),
benzyl alcohol (5) and
water (76). A reference composition was prepared by mixing
(wt.%) magnesium
chloride hexahydrate (2), lactic acid (2), ethanol (15),
benzyl alcohol (5) and
water (76). Approximately 0.03 g of standard house dust
(contained about 1000
and the test/reference composition was sprayed on the house
dust. After dried
in room temperature for 5 hours, the felt was put into a
polyethylene bag and

the mite allergen of the felt was extracted with phosphate buffered saline (10 ml) (pH 7, containing bovine serum albumin (15 wt.%) by crumpling for one minute. The extracted solution was centrifuged for 60 minutes with 12000 rotations per minute. The amount of mite allergens was estimated by MITEY CHECKER (detecting kit for the house mite allergens) and by Enzyme Linked Immunosorbent Assay (ELISA). The test/reference composition showed following results: score of Mitey checker = no color change/thick, apparent line; ELISA (microgram) = 1 (around less than 10 mites)/26 (around greater than 350 mites); and denaturing ratio (%) = 96/4.

MECHANISM OF ACTION - None given.

USE - The method is used for denaturing allergens (claimed) that are originated from mites (such as cheyletid mites or grain mites particularly house dust mites), hair or epithelium of pets like dogs and cats, cockroaches, feathers, fungi and plant allergens.

ADVANTAGE - The use of calcium and/or strontium salts gives excellent denaturing efficacy on allergens without any coloring trouble on the treated material and can steadily denature the allergens those exist in the environment.

ABSTRACTED-PUB-NO: US2001048097A
EQUIVALENT-ABSTRACTS: NOVELTY - Denaturing of allergens involves applying alkaline earth metal salt selected from calcium and strontium salts to the place where allergens exist or will exist.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a composition (C1) comprises the calcium or strontium salt, organic or

phosphonic acid and at least one of water and alcohols; and

(2) a composition (C2) comprises the calcium or strontium salt, at least one water-soluble polymer compound and at least one of water and alcohols. The polymer compound is polyvinyl alcohol, polyacrylic acid, polyacrylic acid salts, polyethylene glycol or polyvinyl pyrrolidone.

ACTIVITY - Antiallergic.

An allergen denaturing test composition was prepared by mixing (wt.%) strontium chloride hexahydrate (2), lactic acid (2), ethanol (15), benzyl alcohol (5) and water (76). A reference composition was prepared by mixing (wt.%) magnesium chloride hexahydrate (2), lactic acid (2), ethanol (15), benzyl alcohol (5) and water (76). Approximately 0.03 g of standard house dust (contained about 1000 and the test/reference composition was sprayed on the house dust. After dried in room temperature for 5 hours, the felt was put into a polyethylene bag and the mite allergen of the felt was extracted with phosphate buffered saline (10 ml) (pH 7, containing bovine serum albumin (15 wt.%) by crumpling for one minute. The extracted solution was centrifuged for 60 minutes with 12000 rotations per minute. The amount of mite allergens was estimated by MITEY CHECKER (detecting kit for the house mite allergens) and by Enzyme Linked Immunosorbent Assay (ELISA). The test/reference composition showed following results: score of Mitey checker = no color change/thick, apparent line; ELISA (microgram) = 1 (around less than 10 mites)/26 (around greater than 350 mites); and denaturing ratio (%) = 96/4.

MECHANISM OF ACTION - None given.

USE - The method is used for denaturing allergens (claimed) that are originated

from mites (such as cheyletid mites or grain mites particularly house dust mites), hair or epithelium of pets like dogs and cats, cockroaches, feathers, fungi and plant allergens.

ADVANTAGE - The use of calcium and/or strontium salts gives excellent denaturing efficacy on allergens without any coloring trouble on the treated material and can steadily denature the allergens those exist in the environment.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS:

CALCIUM STRONTIUM SALT DENATURE ALLERGEN HOUSE DUST MITE

-----DERWENT-CLASS: A97-C03-P34-----

CPI-CODES: A12-V03C1; A12-W04C; C03-F; C04-C02D; C05-A01B;
C05-B02A3; C10-A07;
C10-C02; C10-C04E; C14-G02A;

CHEMICAL-CODES:

Chemical Indexing M2 *01*

Fragmentation Code

A220 A960 C710 J0 J011 J1 J171 M210 M211 M262
M281 M320 M411 M431 M510 M520 M530 M540 M620 M630
M781 M782 M904 M905 M910 P431

Specific Compounds

00233K 00233T 00233M 00233U

Registry Numbers

0233U

Chemical Indexing M2 *02*

Fragmentation Code

A220 A960 C710 J0 J011 J1 J171 M210 M212 M262
M281 M320 M411 M431 M510 M520 M530 M540 M620 M630
M781 M782 M904 M905 P431

Specific Compounds

13202K 13202T 13202M 13202U

Chemical Indexing M2 *03*

Fragmentation Code

A220 A940 C108 C307 C510 C730 C801 C802 C803 C804
C807 M411 M431 M781 M782 M904 M905 M910 P431

Specific Compounds
01905K 01905T 01905M 01905U
Registry Numbers
1905U

Chemical Indexing M2 *04*

Fragmentation Code
A220 A940 C017 C100 C730 C801 C803 C804 C805 C806
C807 M411 M431 M781 M782 M904 M905 M910 P431
Specific Compounds
01895K 01895T 01895M 01895U
Registry Numbers
1895U

Chemical Indexing M2 *05*

Fragmentation Code
A220 A940 C035 C100 C730 C801 C803 C804 C805 C806
C807 M411 M431 M781 M782 M904 M905 P431
Specific Compounds

08209K 08209T 08209M 08209U

Chemical Indexing M2 *06*

Fragmentation Code
A220 A940 C053 C100 C730 C801 C803 C804 C805 C806
C807 M411 M431 M781 M782 M904 M905 P431
Specific Compounds
08980K 08980T 08980M 08980U

Chemical Indexing M2 *07*

Fragmentation Code
A220 A960 C710 H4 H401 H481 H8 J0 J011 J1
J171 M280 M312 M321 M331 M340 M342 M349 M381 M391
M411 M431 M510 M520 M530 M540 M620 M630 M781 M782
M904 M905 M910 P431
Specific Compounds
03490K 03490T 03490M 03490U
Registry Numbers
0009U

Chemical Indexing M2 *08*

Fragmentation Code
A220 A940 C106 C108 C530 C730 C801 C802 C803 C805
C807 M411 M431 M781 M782 M904 M905 M910 P431
Specific Compounds
01278K 01278T 01278M 01278U 05243K 05243T 05243M 05243U
Registry Numbers
1278U

Chemical Indexing M2 *09*

Fragmentation Code

A220 A940 B115 B701 B713 B720 B815 B831 C108 C802
C803 C804 C805 C807 M411 M431 M781 M782 M904 M905
M910 P431

Specific Compounds

01757K 01757T 01757M 01757U A00D3K A00D3T A00D3M A00D3U

Registry Numbers

1757U

Chemical Indexing M2 *10*

Fragmentation Code

A220 A960 C710 H4 H401 H481 H8 J0 J013 J1
J173 M280 M313 M321 M332 M344 M349 M381 M391 M411
M431 M510 M520 M530 M540 M620 M781 M782 M904 M905
P431

Specific Compounds

06309K 06309T 06309M 06309U 12953K 12953T 12953M 12953U

Chemical Indexing M2 *11*

Fragmentation Code

A220 A940 B115 B702 B713 B720 B815 B832 C108 C802
C803 C804 C805 C807 M411 M431 M781 M782 M904 M905
P431

Specific Compounds

04776K 04776T 04776M 04776U

Chemical Indexing M2 *12*

Fragmentation Code

A220 A960 B415 B701 B713 B720 B815 B831 C710 H4
H402 H482 H8 M280 M313 M321 M332 M343 M383 M391
M411 M431 M510 M520 M530 M540 M620 M630 M781 M782
M904 M905 P431

Specific Compounds

07240K 07240T 07240M 07240U

Chemical Indexing M2 *13*

Fragmentation Code

A220 A960 C710 H4 H402 H482 H8 J0 J012 J1
J171 J3 J371 M280 M312 M315 M321 M332 M333 M342
M343 M349 M381 M392 M411 M431 M510 M520 M530 M540
M620 M630 M781 M782 M904 M905 P431

Specific Compounds

04600K 04600T 04600M 04600U

Registry Numbers

0467U

Chemical Indexing M2 *14*

Fragmentation Code
A220 A960 C710 H4 H402 H482 H8 J0 J012 J1
J172 M280 M312 M321 M332 M344 M349 M381 M391 M411
M431 M510 M520 M530 M540 M620 M630 M781 M782 M904
M905 P431
Specific Compounds
06259K 06259T 06259M 06259U
Registry Numbers
0540U

Chemical Indexing M2 *15*

Fragmentation Code
A220 A960 C710 J0 J012 J1 J172 M280 M312 M321
M332 M342 M382 M391 M411 M431 M510 M520 M530 M540
M620 M630 M781 M782 M904 M905 M910 P431
Specific Compounds
14074K 14074T 14074M 14074U
Registry Numbers
0900U

Chemical Indexing M2 *16*

Fragmentation Code
A220 A960 C710 H4 H401 H481 H8 J0 J012 J1
J172 M280 M312 M321 M332 M343 M349 M381 M391 M411
M431 M510 M520 M530 M540 M620 M630 M781 M782 M904
M905 P431
Specific Compounds
03051K 03051T 03051M 03051U
Registry Numbers
1656U

Chemical Indexing M2 *17*

Fragmentation Code
A220 A960 C710 F013 F431 J0 J011 J1 J111 M280
M320 M411 M431 M510 M521 M530 M540 M630 M781 M782
M904 M905 P431
Specific Compounds
A0IOXK A0IOXT A0IOXM A0IOXU

Chemical Indexing M2 *18*

Fragmentation Code
A220 A960 C710 H4 H405 H484 H8 J0 J011 J1
J171 K0 L8 L814 L821 L832 M280 M315 M321 M332
M344 M349 M381 M391 M411 M431 M520 M530 M540 M620
M630 M781 M782 M904 M905 P431
Specific Compounds
04225K 04225T 04225M 04225U

Chemical Indexing M2 *19*

Fragmentation Code

A238 A940 C017 C100 C730 C801 C803 C804 C805 C806
C807 M411 M431 M781 M782 M904 M905 M910 P431

Specific Compounds

01920K 01920T 01920M 01920U

Registry Numbers

1920U

Chemical Indexing M2 *20*

Fragmentation Code

A238 A960 C710 J0 J011 J1 J171 M210 M211 M262
M281 M320 M411 M431 M510 M520 M530 M540 M620 M630
M781 M782 M904 M905 P431

Specific Compounds

13335K 13335T 13335M 13335U

Chemical Indexing M2 *21*

Fragmentation Code

A238 A960 C710 H4 H401 H481 H8 J0 J011 J1
J171 M280 M311 M321 M342 M349 M383 M391 M411 M431
M510 M520 M530 M540 M620 M781 M782 M904 M905 P431

Specific Compounds

13333K 13333T 13333M 13333U

Chemical Indexing M2 *22*

Fragmentation Code

A238 A960 C710 H4 H401 H481 H8 J0 J013 J1
J173 M280 M313 M321 M332 M344 M349 M383 M391 M411
M431 M510 M520 M530 M540 M620 M781 M782 M904 M905
P431

Specific Compounds

20795K 20795T 20795M 20795U

Chemical Indexing M2 *23*

Fragmentation Code

A238 A960 C710 H4 H405 H484 H8 J0 J011 J1
J171 K0 L8 L814 L821 L832 M280 M315 M321 M332
M344 M349 M381 M391 M411 M431 M510 M520 M530 M540
M620 M630 M781 M782 M904 M905 P431

Specific Compounds

13334K 13334T 13334M 13334U

Registry Numbers

1327U

Chemical Indexing M2 *24*

Fragmentation Code

A220 C710 J0 J012 J1 J172 M280 M311 M321 M342

M382 M391 M411 M431 M510 M520 M530 M540 M620 M630
M640 M781 M782 M904 M905 P431
Specific Compounds
A5ERSK A5ERST A5ERSM A5ERSU

Chemical Indexing M2 *25*

Fragmentation Code
A220 C710 H4 H402 H482 H8 J0 J011 J1 J171
M280 M312 M321 M332 M343 M349 M381 M391 M411 M431
M510 M520 M530 M540 M620 M630 M640 M781 M782 M904
M905 P431
Specific Compounds
A5ERTK A5ERTT A5ERTM A5ERTU

Chemical Indexing M2 *26*

Fragmentation Code
A238 A960 C710 J0 J011 J1 J171 M210 M212 M262
M281 M320 M411 M431 M510 M520 M530 M540 M620 M630
M781 M782 M904 M905 P431
Specific Compounds
A44XYK A44XYT A44XYM A44XYU

Chemical Indexing M2 *27*

Fragmentation Code
H4 H401 H481 H8 J0 J011 J1 J171 M280 M312
M321 M331 M340 M342 M349 M381 M391 M423 M431 M620
M782 M904 M905 M910 P431
Specific Compounds
00009K 00009T 00009M 06285K 06285T 06285M
Registry Numbers
0009U

Chemical Indexing M2 *28*

Fragmentation Code
H4 H401 H481 H8 J0 J012 J1 J172 M280 M312
M321 M332 M343 M349 M381 M391 M416 M431 M620 M782
M904 M905 M910 P431
Specific Compounds
01656K 01656T 01656M 06050K 06050T 06050M
Registry Numbers
1656U

Chemical Indexing M2 *29*

Fragmentation Code
H4 H402 H482 H8 J0 J012 J1 J172 M280 M312
M321 M332 M344 M349 M381 M391 M416 M431 M620 M782
M904 M905 M910 P431
Specific Compounds

00540K 00540T 00540M 06055K 06055T 06055M
Registry Numbers
0540U

Chemical Indexing M2 *30*

Fragmentation Code
J0 J012 J1 J172 M280 M311 M321 M342 M382 M391
M416 M431 M620 M782 M904 M905 M910 P431
Specific Compounds
01137K 01137T 01137M 12109K 12109T 12109M
Registry Numbers
1137U

Chemical Indexing M2 *31*

Fragmentation Code
J0 J012 J1 J172 M280 M312 M321 M332 M342 M382
M391 M416 M431 M620 M782 M904 M905 M910 P431
Specific Compounds
00900K 00900T 00900M 07861K 07861T 07861M
Registry Numbers
0900U

Chemical Indexing M2 *32*

Fragmentation Code
F012 F013 F014 F015 F113 H4 H403 H421 H482 H8
J5 J522 K0 L8 L818 L821 L832 L9 L942 L960
M280 M312 M321 M332 M343 M373 M391 M413 M431 M510
M521 M530 M540 M782 M904 M905 M910 P431
Specific Compounds
00035K 00035T 00035M 04454K 04454T 04454M
Registry Numbers
0035U

Chemical Indexing M2 *33*

Fragmentation Code
F012 F013 F014 F015 F113 H4 H403 H421 H482 H8
J5 J522 K0 L8 L818 L821 L832 L9 L942 L960
M280 M312 M321 M332 M343 M373 M391 M413 M431 M510
M521 M530 M540 M782 M904 M905 P431
Specific Compounds
06288K 06288T 06288M 16366K 16366T 16366M

Chemical Indexing M2 *34*

Fragmentation Code
J0 J011 J1 J171 M210 M211 M262 M281 M320 M416
M431 M620 M782 M904 M905 M910 P431
Specific Compounds
00247K 00247T 00247M 07345K 07345T 07345M

Registry Numbers
0247U

Chemical Indexing M2 *35*

Fragmentation Code
J0 J011 J1 J171 M210 M212 M262 M281 M320 M416
M431 M620 M782 M904 M905 M910 P431
Specific Compounds
00445K 00445T 00445M 07398K 07398T 07398M
Registry Numbers
0445U

Chemical Indexing M2 *36*

Fragmentation Code
H4 H405 H484 H8 J0 J011 J1 J171 K0 L8
L814 L821 L832 M280 M315 M321 M332 M344 M349 M381
M391 M416 M431 M620 M782 M904 M905 M910 P431
Specific Compounds
01327K 01327T 01327M 06408K 06408T 06408M
Registry Numbers
1327U

Chemical Indexing M2 *37*

Fragmentation Code
H7 H721 J0 J012 J1 J172 M280 M312 M321 M332
M342 M382 M391 M416 M431 M782 M904 M905 M910 P431
Specific Compounds
00901K 00901T 00901M 04801K 04801T 04801M
Registry Numbers
0901U

Chemical Indexing M2 *38*

Fragmentation Code
H7 H721 J0 J012 J1 J172 M280 M312 M321 M332
M342 M382 M391 M416 M431 M782 M904 M905 M910 P431
Specific Compounds
00902K 00902T 00902M 04891K 04891T 04891M
Registry Numbers
0902U

Chemical Indexing M2 *39*

Fragmentation Code
B115 B701 B712 B720 B819 B831 C101 C108 C800 C802
C804 C805 C807 M411 M423 M431 M782 M904 M905 P431
Specific Compounds
01970K 01970T 01970M
Registry Numbers
1970U

Chemical Indexing M1 *40*

Fragmentation Code

J0 J011 J1 J111 M423 M431 M782 M904 M905 M910

P431

Specific Compounds

01866K 01866T 01866M 07226K 07226T 07226M

Registry Numbers

1866U

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0009U; 0035U ; 0233U ;
0247U ; 0445U ; 0467U
; 0540U ; 0900U ; 0901U ; 0902U ; 1137U ; 1278U ; 1327U ;
1656U ; 1757U ; 1866U
; 1895U ; 1905U ; 1920U ; 1970U

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1]

018 ; P1707 P1694 D01

Polymer Index [1.2]

018 ; R00446 G0282 G0271 G0260 G0022 D01 D12 D10 D26

D51 D53 D58

D60 D83 F36 F35 ; H0000 ; P0088 ; P0099

Polymer Index [1.3]

018 ; G0282*R G0271 G0260 G0022 D01 D12 D10 D26 D51 D53

D58 D83

F36 F35 ; H0000 ; P0088

Polymer Index [1.4]

018 ; G0635 G0022 D01 D12 D10 D23 D22 D31 D41 D51 D53

D58 D75 D86

F71 ; H0000

Polymer Index [1.5]

018 ; R00351 G1558 D01 D23 D22 D31 D42 D50 D73 D82 F47

; P8004 P0975

P0964 D01 D10 D11 D50 D82 F34 ; P0055 ; H0000

Polymer Index [1.6]

018 ; Q9999 Q8753 ; ND01 ; Q9999 Q7749 Q7681

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2001-189548

CLIPPEDIMAGE= JP02001354573A

PAT-NO: JP02001354573A

DOCUMENT-IDENTIFIER: JP 2001354573 A

TITLE: ANTI-ALLERGENIC COMPOSITION AND METHOD FOR
DEACTIVATING ALLERGEN

PUBN-DATE: December 25, 2001

INVENTOR-INFORMATION:

NAME

INUI, KEIICHIRO

TERASAKI, MARIKO

COUNTRY

N/A

N/A

ASSIGNEE-INFORMATION:

NAME

SHINTO FINE CO LTD

COUNTRY

N/A

APPL-NO: JP2000177531

APPL-DATE: June 13, 2000

INT-CL_(IPC): A61K031/785; C08F026/02 ; C08G073/02

ABSTRACT:

PROBLEM TO BE SOLVED: To provide an anti-allergenic
composition for
deactivating environmental allergens in the environments,
and to provide a
method for deactivating such allergens.

SOLUTION: This anti-allergenic composition comprises a
high-molecular compound
having ammonium salt on the main chain or side chain and a
molecular weight of

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